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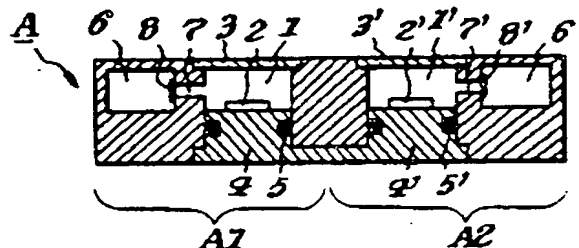
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TITLE : PHOTO-ACOUSTIC ANALYZER



ABSTRACT : PURPOSE: To ensure a simultaneous analysis for several samples under the same condition by setting in parallel several units of the sealed containers formed by linking the reference room to the sample room, irradiating the same amount of optical energy to the sample in each sample room and then detecting the gas movement caused by irradiation of the optical energy via the photo detectors provided at the linking parts between rooms.

CONSTITUTION: Analyzer A consists of two units of sealed container A<sub>1</sub> and A<sub>2</sub> set in parallel to each other. In containers A<sub>1</sub> and A<sub>2</sub>, sample rooms 1 and 1' containing sample stages 4 and 4' to hold samples 2 and 2' are connected to reference rooms 6 and 6' via paths 7 and 7'. Then A<sub>1</sub> and A<sub>2</sub> are filled up with the gas such as the air, nitrogen and the like, and the same amount of the optical energy is irradiated intermittently to samples 2 and 2' in each sample room through light transmission windows 3 and 3'. As a result, the gas has movement, and this movement is detected by thermal flow meter type detector elements 8 and 8' provided at paths 7 and 7'. In this way, a simultaneous analysis can be given to each sample under the same conditions and based on the resistance variation of each detector element.

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